Crediting Legumes in the National School Lunch Program and School Breakfast Program

This guidance applies to meals for preschoolers (ages 1-4) and grades K-12 in the U.S. Department of Agriculture's (USDA) National School Lunch Program (NSLP), School Breakfast Program (SBP), Seamless Summer Option (SSO) of the NSLP, and Afterschool Snack Program (ASP) of the NSLP.



Legumes include cooked dry beans and peas, such as black beans, black-eyed peas (mature, dry), edamame (soybeans), garbanzo beans (chickpeas), kidney beans, lentils, navy beans, soy beans, split peas, and white beans. School food authorities (SFAs) may credit legumes as the



vegetables component or the meat/meat alternates component, but not both in the same meal. Menu planners must determine in advance how to credit legumes in a meal. A ½-cup serving of legumes credits as either ½ cup of the vegetables component or 1 ounce equivalent of the meat/meat alternates component.

SFAs may credit legumes as either component in different meals. For example, lentils may credit as the vegetables component at one lunch and as the meat/meat alternates component at another lunch. If a meal includes two servings of legumes, the SFA may choose to credit one serving as the vegetables component and one serving as the meat/meat alternates component. For example, garbanzo beans in a salad may credit as the vegetables component and kidney beans in chili may credit as the meat/meat alternates component.

Crediting Legumes as Vegetables

Foods in the vegetables component credit based on volume, not weight. For example, a ½-cup serving (8 tablespoons) of legumes credits as ½ cup of the vegetables component. The minimum creditable amount for the vegetables component is ½ cup (2 tablespoons). A food must contain the minimum required amount of legumes, excluding added ingredients. For example, a serving of baked beans must contain ½ cup of beans, excluding added ingredients such as sauce and pork fat, to credit as ½ cup of legumes.

The menu planner must round down the amount of legumes in the serving to the nearest ½ cup (2 tablespoons). For example, a recipe with 2½ tablespoons of kidney beans per serving credits as ½ cup of the vegetables component. If the menu item contains less than the full serving of the vegetables component, the meal must include additional vegetables to provide the full serving for each grade group.

Vegetable subgroups for grades K-12

The lunch meal pattern for grades K-12 requires weekly amounts of five vegetable subgroups, including legumes. Vegetables offered in amounts less than ½ cup do not count toward the calculation of the lunch menu's daily and weekly vegetable offerings, but must count toward the weekly dietary specifications. For information on the dietary specifications, see the meal patterns for grades K-12 (available on the Connecticut State Department of Education's (CSDE) Meal Patterns for Grades K-12 in School Nutrition Programs webpage) and section 6 of the CSDE's Menu Planning Guide for School Meals for Grades K-12. For information on the vegetable subgroups, see the CSDE's handout, Vegetable Subgroups in the NSLP.

Note: The preschool meal patterns do not require dietary specifications or vegetable subgroups. However, the USDA's *CACFP Best Practices* recommends that preschool menus include at least one weekly serving of each vegetable subgroup. For more information, see *Vegetable Subgroups in the CACFP*.

Crediting Legumes as Meat/Meat Alternates

The SBP meal patterns do not require the meat/meat alternates component. For grades K-12 at breakfast, SFAs may substitute 1 ounce equivalent of the meat/meat alternates component (including legumes) for 1 ounce equivalent of the grains component, after offering the minimum daily 1 ounce equivalent of grains. For preschoolers at breakfast, SFAs may substitute the meat/meat alternates component for the entire grains component up to three times per week. For more information, see the USDA's handout, *Serving Meat and Meat Alternates at Breakfast in the CACFP*.

The meal patterns for grades K-12 in the NSLP and SSO list the he meat/meat alternates component in ounce equivalents. The meal patterns for grades K-12 in the ASP and preschoolers in the NSLP, SSO, and ASP list the meat/meat alternates component in ounces. The amount of legumes that equals 1 ounce equivalent or 1 ounce is the same (1/4 cup of legumes).

Legumes credit as the meat/meat alternates component based on volume. A ½-cup serving (4 tablespoons) of legumes credits as 1 ounce equivalent of the meat/meat alternates component for grades K-12 in the NSLP and 1 ounce of the meat/meat alternates component for grades K-12 in the ASP and preschoolers in the NSLP and ASP. The minimum creditable amount of legumes is 1 tablespoon (¼ ounce equivalent). If a legume menu item contains less than the full serving of the meat/meat alternates component, the meal must include another meat/meat alternate to provide the full serving for each grade group. At lunch, SFAs must serve the meat/meat alternates component as the main dish, or as the main dish and one other food item.

The menu planner must round down the amount of legumes to the nearest $\frac{1}{4}$ ounce equivalent of the meat/meat alternates component. For example, a recipe that contains $\frac{2}{2}$ tablespoons

(0.625 ounce equivalent of meat/meat alternates) of kidney beans per serving rounds down to 0.5 ounce equivalent of the meat/meat alternates component. Table 1 shows the serving size (volume) of legumes that equates to ounce equivalents of the meat/meat alternates component.

Table 1. Serving size for legumes crediting as the meat/meat alternates component	
Serving size (volume)	Meal pattern contribution (ounce equivalents)
8 tablespoons (½ cup)	2
7 tablespoons	13/4
6 tablespoons (3/8 cup)	11/2
5 tablespoons	11/4
4 tablespoons (1/4 cup)	1
3 tablespoons	3/4
2 tablespoons (1/8 cup)	1/2
1 tablespoon (¹ / ₁₆ cup)	1/4 (minimum creditable amount)

Roasted or Dried Legumes

Menu planners may credit roasted or dried legumes, such as garbanzo beans (chick peas) and soy beans, as either the meat/meat alternates component or the vegetables component, but not both in the same meal.



- Meat/meat alternates: Roasted or dried legumes credit as the meat/meat alternates component the same as nuts and seeds, which credit based on weight (ounces). A 1-ounce serving of roasted or dried legumes provides 1 ounce equivalent of the meat/meat alternates component for grades K-12 in the NSLP and SSO; and 1 ounce of the meat/meat alternates component for grades K-12 in the ASP and preschoolers in the NSLP, SSO, and ASP. At lunch, roasted or dried legumes cannot credit for more than half of the meat/meat alternates component. Menu planners must combine roasted or dried legumes with another food from the meat/meat alternates component to meet the full requirement for each grade group.
- **Vegetables:** Roasted or dried legumes credit as the legumes subgroup of the vegetables component based on volume (cups). For example, ½ cup of roasted or dried legumes credits as ½ cup of the vegetables component (legumes subgroup). Menu planners may credit roasted or dried legumes toward the minimum weekly requirement of ½ cup of legumes for grades K-12 at lunch.

The USDA recommends that SFAs use discretion when offering snack-type legumes (such as individually wrapped soy nuts) as part of reimbursable meals, due to their perception as snack foods. While these types of products credit in school meals, they may be better suited for bagged lunches during meals away from school.

Crediting Legumes in Recipes

A recipe's crediting information depends on whether the menu planner credits the legumes as the vegetables component or the meat/meat alternates component. To determine the crediting information for a recipe, the menu planner must first determine the total volume (cups) of legumes in the recipe.

- Vegetables: The minimum creditable amount of the vegetable component is ½ (0.125) cup. To determine the number of ½-cup servings of legumes in one serving of the recipe, divide the total cups of legumes in one serving of the recipe by 0.125, then round down to the nearest ½ cup. Table 2 shows an example of how to calculate the vegetables contribution of legumes in a recipe.
- Meat/meat alternates: A ½-cup (0.25) serving of legumes provides 1 ounce equivalent of the meat/meat alternates component. To determine the ounce equivalents of the meat/meat alternates component in one serving of the recipe, divide the total cups of legumes in one serving of the recipe by 0.25, then round down to the nearest ¼ ounce equivalent (grades K-12) or ounce (preschoolers). Table 3 shows an example of how to calculate the meat/meat alternates contribution of legumes in a recipe.

For assistance with recipe calculations, use the equivalent volume measures in the ICN's *Basics at a Glance Portion Control Poster* and the decimal fraction equivalents chart (table 6) in the "Introduction" section of the USDA's *Food Buying Guide for Child Nutrition Programs* (FBG).

For information on standardized recipes, see section 2 of the CSDE's Menu Planning Guide for School Meals for Grades K-12, section 2 of the CSDE's Menu Planning Guide for Preschoolers in the NSLP, SBP, and ASP, chapter 4 of the USDA's Menu Planner for School Meals: School Year 2018-2019, the CSDE's Standardized Recipe Form for School Nutrition Programs, and visit the "Crediting Foods Prepared on Site" section of the CSDE's Crediting Foods in School Nutrition Programs webpage.

Table 2. Calculating the vegetable contribution of legumes in a recipe

A recipe provides 50 servings and contains 1 gallon and 1 quart of chickpeas. How many cups of vegetables (legumes subgroup) does the recipe provide per serving?

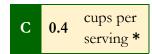
1. Determine the total cups of legumes in the recipe: Use the ICN's *Basics at a Glance Portion Control Poster* to convert larger measurements to cups. Use the decimal fraction equivalents chart (table 6) in the FBG's "Introduction" section to convert fractions to decimals.

A 20 cups

1 gallon (16 cups) plus 1 quart (4 cups) of chickpeas equals 20 cups of chickpeas.

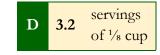
2. Number of servings in the recipe:

- B 50 servings
- 3. Determine the cups of legumes per serving: Divide the total cups of legumes (A) by the number of servings in the recipe (B).



20 cups of chickpeas divided by 50 servings equals 0.4 cup of chickpeas per serving.

- *Note: If the decimal amount for the cups of legumes per serving (C) converts to an even multiple of ½ cup, such as 0.5 (½) cup, 0.25 (¼) cup, or 0.125 (⅓) cup, this is the final meal pattern contribution for the legumes subgroup of the vegetables component. Do not complete steps 4 and 5.
- 4. Determine the number of ½-cup servings (minimum creditable amount) of legumes in one serving of the recipe: Divide the cups of legumes per serving (C) by 0.125.



0.4 cup of chickpeas per serving divided by 0.125 equals 3.2 servings of ½ cup.

5. Round down the number in D to nearest ½-cup serving.

E 3 servings of ½ cup

3.2 servings round down to 3 servings of $\frac{1}{8}$ cup (or $\frac{3}{8}$ cup). One serving of the recipe contains $\frac{3}{8}$ cup of the vegetables component.

Meal pattern contribution: 3/8 cup of the legumes subgroup

Table 3. Calculating the meat/meat alternates contribution of legumes

A recipe provides 50 servings and contains 1 gallon and 1 quart of chickpeas. How many ounce equivalents of the meat/meat alternates component does the recipe provide per serving?

1. Determine the total cups of legumes in the recipe: Use the ICN's *Basics at a Glance Portion Control Poster* to convert larger measurements to cups. Use the decimal fraction equivalents chart (table 6) in the FBG's "Introduction" section to convert fractions to decimals.

A 20 cups

1 gallon (16 cups) plus 1 quart (4 cups) of chickpeas equals 20 cups of chickpeas.

2. Number of servings in the recipe:

B 50 servings

3. Determine the cups of legumes per serving: Divide the total cups of legumes (A) by the number of servings in the recipe (B).

C 0.4 cups per serving

20 cups of chickpeas divided by 50 servings equals 0.4 cup of chickpeas per serving.

4. Determine the ounce equivalents of meat/meat alternates per serving: Divide the cups of legumes per serving (C) by 0.25 (1 ounce equivalent = ½ cup (0.25) of legumes).

D 1.6 equivalents per serving *

- $0.4~\mathrm{cups}$ of chickpeas per serving divided by $0.25~\mathrm{equals}$
- 1.6 ounce equivalents of meat/meat alternates. *
- 5. Round down the number in D to the nearest 1/4 ounce equivalent.

E 1.5 ounce equivalents per serving *

1.6 ounce equivalents rounds down to 1.5 ounce equivalents of meat/meat alternates. One serving of the recipe contains 1.5 ounce equivalents of the meat/meat alternates component. *

Meal pattern contribution: 1.5 ounce equivalents of the meat/meat alternates component *

* The NSLP meal pattern for grades K-12 lists the meat/meat alternates component in ounce equivalents. The meal patterns for grades K-12 in the ASP and preschoolers in the NSLP and ASP list the meat/meat alternates component in ounces. The volume equivalent of legumes is the same for both measurements, e.g., 1 ounce equivalent or 1 ounce equals ½ cup of legumes.

Pasta Products Made of Legume Flours

SFAs may credit pasta products made of legumes flours as either the vegetables component or the meat/meat alternates component, but not both in the same meal.

- Meat/meat alternates: Crediting pasta products that contain legume flours as the meat/meat alternates component is the same as crediting legumes as the meat/meat alternates component. A ½-cup serving of cooked pasta made of 100 percent legume flours credits as 2 ounce equivalents of the meat/meat alternates component. Note: The pasta must be offered with additional meat/meat alternates, such as tofu, cheese, or meat. The USDA's intent for this requirement is to ensure that SFAs offer meat/meat alternates in a form that is recognizable to students. The USDA emphasizes the importance of the nutrition education aspect of school nutrition programs, which includes the goal of helping children easily recognize the key food groups that contribute to a healthy meal.
- Vegetables: Pasta products that contain vegetable flours from one vegetable subgroup may credit toward the appropriate vegetable subgroup. For example, ½ cup of pasta made of 100 percent red lentil flour credits as ½ cup of the legumes subgroup.

Alternatively, manufacturers and SFAs may credit legume flour pasta using the bean flour yield information on page C-1 of Appendix C of the FBG, or with appropriate documentation on the manufacturer's PFS. For more information, see the USDA's resources, *Sample PFS for Meat/Meat Alternate Products* and *Tips for Evaluating a Manufacturer's PFS*.



Resources

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Afterschool Snack Program Handbook (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/ASP/ASPHandbook.pdf
Appendix C: Food Items for Further Processing, Food Buying Guide for Child Nutrition
   Programs (USDA):
   https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_FoodItemsForFurtherPr
   ocessing_YieldTable.pdf
CACFP Best Practices (USDA):
   https://fns-prod.azureedge.net/sites/default/files/cacfp/CACFP_bestpractices.pdf
Crediting Foods in School Nutrition Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs
Food Buying Guide for Child Nutrition Programs (USDA):
   https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs
Meal Patterns for Grades K-12 in School Nutrition Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-School-Nutrition-Programs
Meal Patterns for Preschoolers in School Nutrition Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-Preschoolers-in-School-Nutrition-
   Programs/Documents
Meal Patterns for Preschoolers in School Nutrition Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-Preschoolers-in-School-Nutrition-
   Programs/Documents
Menu Planner for School Meals: School Year 2018-2019 (USDA):
   https://www.fns.usda.gov/tn/menu-planner
Menu Planning for Child Nutrition Programs (CSDE webpage):
   https://portal.ct.gov/SDE/Nutrition/Menu-Planning
Menu Planning Guide for Preschool Meals (CSDE):
   https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Preschool/MPGpreschool.pdf
Menu Planning Guide for School Meals for Grades K-12 (CSDE):
   https://portal.ct.gov/SDE/Nutrition/Menu-Planning-Guide-for-School-Meals
Product Formulation Statement for Meat/Meat Alternates (USDA):
   https://fns-prod.azureedge.net/sites/default/files/resource-
   files/PFS_Documenting_Meat_Meat_Alternate_Nov_2019.pdf
Product Formulation Statement for Vegetables and Fruits (USDA):
   https://fns-prod.azureedge.net/sites/default/files/resource-
   files/PFS_Documenting_Vegetables_Subgroups_Fruits.pdf
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Product Formulation Statements (CSDE): https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/PFS.pdf

Reviewer's Checklist for Evaluating Manufacturer Product Formulation Statements for Meat/Meat Alternates (USDA):

https://fns-prod.azureedge.net/sites/default/files/reviewer_checklist.pdf

Sample Completed Product Formulation Statement for Fruits (USDA):

https://fns-prod.azureedge.net/sites/default/files/resource-files/PFSsamplefruits.pdf

Sample Completed Product Formulation Statement for Vegetables (USDA):

https://fns-prod.azureedge.net/sites/default/files/resource-files/PFSsamplevegetables.pdf

Serving Meat and Meat Alternates at Breakfast in the CACFP (USDA): https://www.fns.usda.gov/sites/default/files/tn/CACFPMeatAlt.pdf

Standardized Recipe Form for School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/stdrecipeschools.doc

Tips for Evaluating a Manufacturer's Product Formulation Statement (USDA):

https://fns-prod.azureedge.net/sites/default/files/resource-files/manufacturerPFStipsheet.pdf

USDA Memo SP 26-2019, CACFP 13-2019 and SFSP 12-2019: Crediting Pasta Products Made of Vegetable Flour in the Child Nutrition Programs:

https://www.fns.usda.gov/crediting-pasta-products-made-vegetable-flour-child-nutrition-programs

Vegetable Subgroups in the NSLP (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Vegsubgroup.pdf



For more information, review the CSDE's *Menu Planning Guide for School Meals for Grades K-12* and visit the CSDE's Meal Patterns for Grades K-12 in School Nutrition Programs and Crediting Foods in School Nutrition Programs webpages, or contact the school nutrition programs staff in the CSDE's Bureau of Health/Nutrition, Family Services and Adult Education, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841.

This document is available at https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditLegumes.pdf.

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- (2) fax: (202) 690-7442; or
- (3) email: program.intake@usda.gov.

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